ABSTRACT OF TAPE MADE BY DOUGLAS PERHAM AND ERV RASMUSSEN
June, 1963, at the New Almaden Museum, New Almaden

Tape 1, Side 2

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HERROLD CASE

1 Item 73. Leyden jars. 19 units. From old spark ship set, 1910.

Item 76. Stanley meters. Original meters from Herrold's Garden City Bank Bldg. station.

Item 77. Coupling unit. Conical helix. Pet theory of Dr. Herrold. "Smitty," a technician at University of Santa Clara, who died in 1962, built these helixes for Herrold.

45 Item 81. Herrold oscillator. A copy of Poulsen's arc. Perham explains operation of an arc. Filled atmosphere with "mush." The 30 kw Poulsen arc in museum collection could interfere with television within a radius of 1,000 miles, if used today. This Herrold oscillator borrowed by Marconi Co. then demonstrated it as its own in New York, and England.

consulting engineer with National Wireless,
148 Correspondence from archives. Between W.W. Hanscomb/and Golden, (?) attorney for National Radio Co, formerly National Wireless Telephone and Telegraph Co. To Wolverton from Hanscomb. To stockholders. Period from 1914 to 1920.

447 Item 85. Multi carbon microphone/ head. Used to modulate arcs. Patented by Herrold.

Item 87. Lightning arrester. Made by Herrold.

Item 85. Marble base key. Used by Herrold.

Item 89. Two choppers. Used by Herrold. Operation described by Perham.

Item 92. 500 volt chopper.

515 Item 90. Loose coupler. Used from 1910-1925. Herrold furnished people in valley with crystal receiving sets so he would have audience.

Item 91. Tuning coil. Two sliders.

Item 93. Murdock telephones. On market about 1910.

Item 94, 95. Westen voltmeter, ammeter.

Item 96, 97. Tuning condensers, variable inductance reactors used at Herrold's station.

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544 Item 98. Set of pictures and documents. An official inventory Herrold's material prepared for new company. Blue print of original oscillator. Photo of Emil Portal who started own broadcasting station in Los Altos, which was later under Colin B. Kennedy Co. Kennedy Co. making marine receivers at old Auzerais (?) house in 1919. Dr. Leonard Fuller, partner and financial backer. Saunders was Herrold's operator, living now in Manteca. Letter from Herrold and Portal to Hanscomb, March 3, 1916. News story in Pacific Radio News, January 19, 1921 on recently incorporated Colin B. Kennedy company. Kennedy, President; Harry J. Rathbun, Vice President; Nathan J. Bowers, Secretary; Emil Portal, Treasurer; and Dr. Leonard Fuller, Board member. Comments on these men.

646 DE FOREST STORY

Doug Perham reads highlights of de Forest's life from 1873 to 1957. Also reads an introduction he wrote for occasion honoring de Forest. Discussion of de Forest.

759 Item 100. 38 tubular audions. This collection covers de Forest's early work. Candlelabra bases. Reference to letter in archives from de Forest stating that "this is his original tube.".a cylindrical tube, candlelabra base. Discussion of various de Forest tubes.

Perforated metal grid/tubes made by Moorehead. Type R tubes. Moorehead and de Forest collaborated in manufacturing tubes. Friendly patent suits.

1916. De Forest shotgun suit against Moorehead, Elmer Cunningham and Hyde. Injunction denied.

Cunningham records in Perham's archives.

851 Item 102. Singertype audions. Medium powered transmitting tubes. Could be used in an oscillating device at audio frequencies.

Item 103. H. tube. 100 w transmitting tube used in mid '20s or early '30s. $18.00 from the De Forest Radio Company, New Jersey.

891 Item 104. Fleming valve. Rarest of tubes in collection. Discussion of Edison's work, Lippincott (patent attorney), Ben Cromey (?) Legal battles between Fleming and Marconi v.s. de Forest.

946 Item 105. 48 miscellaneous Marconi, de Forest and Moorehead tubes. Three-way deal. Story of Otis Moorehead, born 1893 in San Francisco. Died 1923. Patent suits. Letters from archives. Moorehead became largest manufacturer of vacuum tubes in U.S.--factory in S.F. 1919--de Forest, Marconi, Cunningham and Moorehead combined to make tubes. Sales, royalties, etc. RCA formed in mid 1920s. Brochure of Moorehead Company of 1919; Bankrupt in 1920.

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160 Comment on Harry Roome of Los Angeles. Sold vacuum tubes under name of oscillitron for about 2 years.

Item 107. Two de Forest detector units. Built by de Forest by hand at 913 Emerson Street. Used for experiments.

Item 108. De Forest navy detector. Sliding tuner designed by de Forest before he invented vacuum tube. Compared to "Responder" which is about $\frac{1}{4}$ size of detector. Responder very rare--Smithsonian recently bought one for $250. from Paul Giganti. The detector was prototype of the RJ4 and RJ5 which came along commercially.

Item 109. VT 20s. Made by de Forest first without a getter, six months later with one...1920.

215 Item 110. Edison lamp made by McCandless. Bamboo filament; showing the "Edison effect."

Item 111. 500 watt transmitter tube. Built by de Forest about 1918-1919.

Item 112. Transmitting tube. I kilowatt oscillion. Listed in old de Forest catalog of Lee de Forest, Incorporated, 451 Third Street, S.F. Prior to May, 1920. Describes the Singer tube with tungsten wires. (Catalog autographed by de Forest on December 15, 1956 when he visited Perham) Oscillion tubes described. Lee de Forest, Inc. was marketing organization on the West Coast for the De Forest Radio Co. of New Jersey.

309 Item 114. De Forest tube cans. De Forest sold receiving tubes in cans in mid-'20s. DL and DV series shipped in cans with screw tops. Early ones without labels.

Item 115. De Forest fan switch. Ingenious. Comments on lack of business sense.

Items 118, 119, 120. De Forest receivers, D7, D12, D17. D7 has a reflex crystal detector..description.
Item. 121. DT600 crystal set. "Everyman's radio."

Item. 122. Two dynatherm units. De Forest diathermy machines. Built in 1930s.

Item 123. De Forest variable condenser.

Item 124. De Forest receiver--D6. Not complete.

Item 117. 16 framed documents and photos. Feud on between Mrs. Cogswell, secretary of Palo Alto Historical Society and Dr. de Forest and Doug Perham re the sign in front of 913 Emerson Street.

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399 Sign states 913 is "the birthplace of electronics." First radio communication in Palo Alto took place at Elwell's home on Cowper Street and Middlefield Road--1551 Cowper. Elwell had a receiving station in Los Altos.

Discussion of de Forest and Fleming conflict; feud between de Forest and Armstrong; Ralph Heintz and patent suits; RCA tube stranglehold. Comments on Cyril Elwell, Terman, Chaskin.

536 Item 125. WE 212D. Large transmitting tube from KCBS.

544 End of Tape 1, Side 2.